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Nat. Hist.

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A QUARTERLY PUBLICATION DEVOTED TO THE STUDY OF BEETLES

The Coleopterists' Bulletin

Volume XI Spring and Summer 1957

Published quarterly beginning with March by the DEPARTMENT OF BIOLOGY, SAINT JOHN FISHER COLLEGE, Rochester 18, New York. Terms of subscription: \$5.00 per year, both domestic and foreign, payable in advance. Back numbers are available.

The general policies of The Coleopterists' Bulletin are determined on the recommendation of the following Advisory Board: Dr. Ross H. Arnett, Jr., Head, Department of Biology, St. John Fisher College; Dr. Henry Dietrich, Professor of Entomology, Cornell University; Dr. J. Gordon Edwards, Professor of Entomology, San Jose State College; Dr. Eugene J. Gerberg, Insect Control and Research, Inc., Baltimore, Md.; Dr. Melville H. Hatch, Professor of Zoology, University of Washington, and Mr. George B. Vogt, Entomologist, U. S. Department of Agriculture. Edited by Ross H. Arnett, Jr.

CONTRIBUTION TOWARDS A MONOGRAPH OF THE OEDEMERIDAE 12. THE OEDEMERID BEETLES OF JAMAICA¹

By ROSS H. ARNETT, JR.^{2,3}

The Oedemeridae of Jamaica show the typical island faunal picture, that of a few representatives of what appear to be the more recent genera. There is nothing to indicate a relic fauna, but rather, recent invasions. The nine species herein described or redescribed are confined to the West Indies with the exception of *Oxycopsis falli* (Blatchley) which extends no farther north than the southern tip of Florida, which for all essential purposes, must be considered a part of the West Indies; *Alloxaxis costata* (Champion) which is widely distributed throughout Central America and into the United States, probably in banana shipments, and *Oxycopsis thoracica* (Fab.) which is common in eastern United States and has extended south through the Greater Antilles. There are no oedermerids now known to be confined to Jamaica. I have seen material of all these species from Jamaica, with the exception of *Oxycopsis lineata* (Waterhouse), and this I know from the Dominican Republic.

Key to the Jamaican Oedemeridae

- 1. Claws each with a small tooth near the base 2
- Claws without a tooth at the base, at most sharply angular (*Oxycopsis*) 4
- 2. Right mandible only with a small subapical bifurcation (*Alloxaxis*) 3
- Mandibles acute at the apices (*Paroxaxis*). **albomarginata** (Pic)
- 3. Pale testaceous with a narrow lateral brown to piceous stripe on each elytron **costata** (Champ.)
- Pale except for elytra which are dark with pale markings **spinusosus**, n. sp.

¹The previous part of this series, part 11, will be published in the Proceedings of the Tenth International Congress of Entomology.

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³I am indebted to the following for the loan of material, to whom I extend my sincere thanks: Drs. C. Bernard Lewis, Science Museum, Institute of Jamaica; J. F. Gates Clarke, United States National Museum; Mont A. Cazier, American Museum of Natural History, P. J. Darlington, Jr., Museum of Comparative Zoology, and H. F. Strohecker, University of Miami.

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| 4. Dark shining species with light pale margins at most on elytra, and paler legs | 5 |
| More extensive pale markings. | 6 |
| 5. Entirely piceous except for a somewhat paler sutural and lateral stripe on each elytron and sometimes with reddish-piceous legs | <i>falli</i> (Blatch.) |
| Dark bluish-green, shining, with white pubescence in the form of three narrow stripes on the elytra | <i>lineata</i> (Waterh.) |
| 6. Pronotum with a median longitudinal stripe | <i>barberi</i> , n. sp. |
| Pronotum immaculate | 7 |
| 7. Elytra dark, immaculate | <i>thoracica</i> (Fab.) |
| Elytra dark, with longitudinal markings | 8 |
| 8. Sutural stripe of the elytra broad, equal to one-half or more the width of the elytra | <i>vittata</i> (Fab.) |
| Sutural stripe narrow, at most only slightly wider than the sutural costa | <i>tenella</i> (Waterh.) |

For a definition of the genera found in Jamaica, see my Nearctic revision (1951, *American Midl. Nat.*, 45:257-391). The subgenera *Oxycopis* and *Paroxaxis*, treated in my previous papers as subgenera of *Oxaxis*, are herein given generic status. This is done in the light of recent generic studies not yet published. At the time of the Nearctic study it was felt that these subgenera were not sufficiently well known to give them full generic status. It now appears that greater consistency is achieved by considering these groups of equal status with such genera as *Alloxaxis*, etc.

Paroxaxis Arnett

Oxaxis subgenus *Paroxaxis* Arnett, 1951. *American Midl. Nat.*, 45: 334.

This subgenus is hereby raised to generic status.

Paroxaxis albomarginata (Pic)

Copidita albomarginata Pic, 1934. *Mél. Exot.-Ent.*, 63: 21.

Type locality: "St. Dominique."

Pic's description, translated, reads: "Oblong-elongate, somewhat shiny, black, head and thorax reddish, elytra bluish, margins [of elytra] narrowly white pubescent, appendages black, tibiae at the base pale reddish; head and thorax very finely and somewhat densely punctate; elytra densely rugose punctate. Length 7 mm. St. Dominique. Related to *rubricollis* Wat., but less robust with the head reddish."

This species is close to *P. recendita* Arnett both in coloration and in the male genitalia. It may be readily separated from that species however, by the dark thorax and the narrower elytral stripes, and by the lack of tubercles at the base of the bifurcation of the paramere.

DESCRIPTION OF THE SPECIES.—Head as long as broad, including the mandibles; rugose punctate, punctures deep, oblong, space between the punctures greater than the width of the punctures, micro-rugose. Antennae with each segment six times as long as broad, second segment one-fourth the length of the basal segment. Eyes moderately small, separated dorsally by a distance greater than the width at dorsal view, slightly emarginate near the point of insertion of the antennae. Mandibles

long, curved, entire, with apices sub-acute. Maxillary palpi cultiform, widest near basal third.

Prothorax subcordate, widest subapically, evenly narrowed to base; surface similar to head, but more finely and shallowly punctate, space between punctures micro-rugose. Legs normal for the genus, claws with an acute tooth at base of each. Elytral surface similar to thorax, but still more finely punctate.

Abdomen with the ventral surface minutely rugose.

Pubescence coarse, long, white, heaviest on head and clypeus.

Color basically piceous with reddish tinge on head and thorax; legs paler, reddish, sometimes nearly testaceous, except at basal three-quarter of femora which are always pale, nearly testaceous; suture and margin of each elytron with a narrow pale stripe.

Length: 7-13 mm.

Male genitalia: Normal for the genus; the median lobe is sinuate, close to *P. recendita* Arnett, but not angular at apex; parameres also similar but lack tubercle at base of each lateral lobe.

Distribution.—Jamaica, Haiti, and the Dominican Republic.

Larvae: unknown.

Biology: unknown.

Material examined.—7: Jamaica, St. Thomas, 1, Bath, 2; Portland, Port Antonio, 1; Haiti, St. Maro, 1, Hinche, 1; Dominican Republic, San Francisco Mts., 2.

Alloxaxis Horn

Alloxaxis Horn, 1896. Proc. Calif. Acad. Sci., (2), 6: 395.

Alloxaxis spinosus, new species

In external appearance this species closely resembles *A. megateles* Arnett, but lacks the piceous staining on the pronotum. It may be separated from *A. megateles*, to which it keys in Arnett (1951), by the immaculate pronotum. The male genitalia readily separate these two species. The paramere lacks the very heavy lateral lobes found in *A. megateles*.

Holotype.—Male, Mandeville, Jamaica (A. E. Wright) [Deposited in the Museum of Comparative Zoology collection.]

DESCRIPTION OF THE SPECIES.—Head elongate, somewhat longer than wide; surface shallowly punctate, punctures not well formed, area between punctures greater than width of punctures, surface between punctures micro-rugose. Antennae with the second segment one-quarter to one-third the length of the third segment, each segment four times as long as wide. Eyes set farther apart than the width of the eyes at dorsal view; slightly emarginate near point of insertion of the antennae. Mandibles long, curved, apices subacute, right mandible with an apical bifurcation. Maxillary palpi with the apical segment triangular, widest beyond the basal third.

Thorax very slightly longer than wide. Surface of the pronotum shallowly punctate, similar to the head; two shallow anterior-lateral depressions, and one median posterior depression. Sternum finely rugose-punctate. Legs normal for the genus, claws each with a well developed tooth at base. Elytra finely rugose-punctate, costae obscure.

Abdominal sternum very finely rugose.

Pubescence very fine, short, decumbent, golden.

Color testaceous with piceous staining on palpi, segments of the antennae, meso- and meta-sternum, and abdominal sternum (the latter variable), pale to piceous stained; elytra bluish-piceous with sutural pale stripe, distinctly demarked, and a very narrow, pale marginal stripe, the latter may be nearly absent.

Length: 6-9 mm.

Male genitalia: Eighth sternite with many large, heavy spines. Paramere short, heavy at base; median lobe sub-spatulate.

Distribution.—Jamaica and Bahamas.

Larvae: unknown.

Biology: unknown.

Material examined.—48: Jamaica, no further data, 3, Mandeville, 2 (1 designated Holotype), Ocho Rios, 1, North Coast, 6, St. Ann, Sebilli, 1, St. Andrew, Irish Town, 1, Portland, Port Antonio, 18, St. Ann, Dry Harbor, Discovery Bay, 7, St. Thomas, Bowden, 1, Westmoreland, White House Inn, 1; Bahamas, South Caicos, nr. Cockburn Harbour, 6, Grand Turk, 1. (All specimens (except Holotype) designated as Paratypes.)

***Alloxaxis costata* (Champion)**

Copidita costata Champion, 1896. Trans. Ent. Soc. London 1896: 40.

This species resembles *A. floridana* Horn, but the flattened appearance and the submarginal dark stripe, as well as many differences in the male genitalia readily separate the two.

Type.—British Museum (Natural History), 1 specimen.

Type locality.—" ? St. Vincent " (Champion questions locality.)

DESCRIPTION OF THE SPECIES.—Head slightly longer than broad, surface shallowly punctate, punctures poorly defined, set apart by a distance equal to the width of the punctures, surface between punctures micro-rugose. Antennae with the second segment one-fourth the length of the third, each segment four times as long as broad. Eyes set wide apart, nearly twice as far apart as width at dorsal view, emarginate near point of insertion of the antennae. Mandibles curved, acute at apices, right mandible bifid at apex. Maxillary palpi with the apical segment subtriangular, widest beyond the basal one-third.

Thorax as broad as long, widest at apical third, constricted moderately sharply behind middle. Surface of the pronotum flat, very shallowly punctate, punctures poorly defined, surface between the punctures sub-rugose. Sternum shiny, sub-rugose. Legs with the femora stout for the genus, claws each acutely toothed at the base. Elytra broad, flat, with four evident costae; surface rugose punctate, shining.

Ventral surface of the abdomen sub-rugose.

Pubescence short, fine, decumbent, golden.

Color entirely testaceous, except for a prominent submarginal brown stripe, rarely obscure, on each elytron, and variable lateral brown staining on the pronotum.

Length: 6-8 mm.

Male genitalia: Ninth sternite heavily spinose; paramere with long setae at the apices of the lateral lobes; median lobe broad and spatulate at the apex.

Larvae: unknown.

Biology: collected in banana debris at United States ports, and at light.

DISTRIBUTION.—St. Vincent(?), Jamaica, Dominican Republic, Cuba, Florida, Virginia, Maryland, Alabama, Mexico, Guatemala, Honduras, Nicaragua, and Panama. This is a new record for the Nearctic Region.

MATERIAL EXAMINED.—38: Jamaica, Ocho Rios, 1, Pt. Antonio, 1 St. Ann, Dry Harbour, Discovery Bay, 1; Dominican Republic, Sanchez, 1; Cuba, Chirrivico, 1; Florida, Baldwin, 1; Virginia, Deep Creek, 1; Maryland, Piney Point, 1; Alabama (see Nicaragua); Mexico, Vera Cruz, Tecolutla, 4; Guatemala, at light on ship, 1; Honduras, La Ceiba, 2, Pta. Cortez, 1; Nicaragua, cargo intercepted at Mobile, Alabama, 1; Panama, Porto Bello, 17, San Jose, Perlas Isl., 4.

Oxycopsis Arnett

Oxaxis subgenus *Oxycopsis* Arnett, 1951. American Midl. Nat., 45: 318.

This subgenus is hereby raised to generic status.

Oxycopsis barberi, new species

This species resembles *O. mcdonaldi* Arnett, but it may be easily separated from that species by the broad pale sutural stripe on the elytra. It is named after the late H. S. Barber of the United States Department of Agriculture, who realized this was a new species as long ago as 1911 when the first specimens came to the United States National Museum.

Holotype: Male, Grand Cayman, Jamaica (Dr. Grabham) [Deposited in the United States National Museum.]

DESCRIPTION OF THE SPECIES.—Head slightly longer than broad, surface shallowly punctate, the punctures separated by a distance greater than their width, space between micro-rugose. Antennae with the second segment nearly one-half the length of the third segment, each segment five times as long as broad. Eyes set far apart, nearly two times as far apart as the width of the eyes at dorsal view; emarginate near point of insertion of antennae. Mandibles stout, curved, acute at apices, each bifid at apices. Maxillary palpi cultriform, widest at center, sides parallel for one-half the length at center.

Thorax subcordate, widest near shoulders, sides gradually tapering towards the base. Pronotum punctation similar to that of the head, punctures slightly larger. Sternum micro-rugose. Legs normal for the genus, claws without basal tooth. Elytra rugose, costae onscure.

Abdomen beneath subrugose.

Pubescence medium course, semi-erect, moderately long, white.

Color predominately metallic greenish-blue, with pale testaceous markings; pronotum pale with a median longitudinal stripe and with or without lateral piceous spots; clypeus pale; broad sutural area pale; tibiae and tarsi pale; femora variable, pale, or piceous stained.

Length: 5-7 mm.

Male genitalia: the median lobe and parameres resemble those of the genus *Oxacis* and a basal apodeme is present on the median lobe. No trace of a tegminite can be found. This places this species close to *Oxycopsis falli* and both species are closely related to the genus *Oxacis*.

Larvae: unknown.

Biology: Dr. Grabham says on locality labels "blistering beetles."

DISTRIBUTION.—Jamaica.

MATERIAL EXAMINED.—29: Jamaica, Grand Cayman, 19, St. Andrew, Swallowfield, 10. [Designated as Holotype, and Paratypes.]

***Oxycopsis vittata* (Fabricius)**

Lagria vittata Fabricius, 1775. *Systema entomologiae*, p. 125.

Type locality.—"America."

Copidita lateralis Waterhouse, 1878. *Trans. Ent. Soc. London*, 1878: 307.

Type locality.—Santo Domingo.

Oxacis (Oxycopsis) vittata (Fabricius), Arnett, 1953. *American Mus. Novit.*, no. 1646, p. 4.

This species can be readily separated from *O. suturalis* (Horn), which it closely resembles, by the shape of the apical segment of the maxillary palpus, each palpus having the apical segment widest near the base in *O. suturalis* and widest apically (i.e., beyond the middle) in *O. vittata*, and by the punctuation of the pronotum, the punctures being large and closely placed in *O. suturalis*, and sparse and widely separated in *O. vittata*. It also resembles the following species, *O. tenella*, but may be separated by the features discussed under the species below. Refer to Arnett, 1953, for a full description of this species.

DISTRIBUTION.—Bahamas, Cuba, Jamaica, Hispaniola, Puerto Rico, Virgin Islands, Antigua, Guadeloupe, Dominica, Martinique, St. Lucia, and Grenada.

MATERIAL EXAMINED.—31: Jamaica, 3, Mandeville, 6, Pt. Antonio, 8, Bluefield Bay, 1, St. Andrew, Swallowfield, 2, Manchester, Christiana, 1, Clarendon, Portland Ridge, 1, St. Ann, Dry Harbour, Discovery Bay, 2; Grand Cayman Isl., (North side), 2.

***Oxycopsis tenella* (Waterhouse)**

Copidita tenella Waterhouse, 1878. *Trans. Ent. Soc. London*, 1878: 307.

This species is close to *O. vittata*, but may be readily separated by the absence of the broad sutural stripe; also this species has the pronotum widest at the shoulders, whereas *O. vittata* has the widest portion noticeably more basal; vestiture coarser and more erect compared with *O. vittata*.

Type.—British Museum (Natural History).

Type locality.—St. Thomas.

DESCRIPTION OF THE SPECIES.—Head as long as broad, punctures moderate, surface between punctures moderately rugose. Antennae with the second segment about one-third the length of the third segment; each segment four times as long as wide. Eyes large, set apart about the same distance as width at dorsal view. Mandibles stout, curved, apices acute, each bifid at the apex. Maxillary palpi with the apical segment triangular, widest slightly basal to the center.

Thorax slightly wider than long, sub-cordate, widest at shoulders, gradually tapering basad, sides slightly sinuate. Pronotum with the surface similar to the head with slightly deeper punctures. Sternum rugose-punctate. Legs normal for the genus, claws without basal tooth. Elytra surface rugose, costae moderate.

Abdomen with the ventral surface rugose.

Pubescence long, moderately coarse, sub-erect, pale golden; denser and longer on the elytra.

Color testaceous except elytra which are bluish-piceous, with narrow sutural, and extremely narrow marginal pale stripe.

Length: 7-10 mm.

Male unknown.

Larvae: unknown.

Biology: unknown.

DISTRIBUTION.—St. Thomas, St. Vincent, Jamaica, and Hispaniola.

MATERIAL EXAMINED.—5: Jamaica, St. Andrews, Swallowfield, 2, St. Marys, Highgate, 1, Mandeville, 2.

***Oxycopsis thoracica* (Fabricius)**

Necydalis thoracica Fabricius, 1801. Syst. El., 2: 370.

The smaller size, non-metallic coloration and lack of the median prothoracic black stripe readily separates this species from *Oxycopsis macdonaldi* (Arnett) which it resembles. I am unable to separate *O. thoracica* from *Asclera testaceicollis* Duval, 1857, described from Cuba, but I hesitate to place the latter in synonymy until the oedemerid fauna of the West Indies is better known.

A full description of this species is given in my Nearctic revision, previously cited.

DISTRIBUTION.—Jamaica, Cuba, Haiti, Eastern United States.

MATERIAL EXAMINED.—21: Jamaica, Portland, Port Antonio, 2; Cuba, Santa Clara, 3, Cayamas, 13; Haiti, Port-au-Prince, 3.

***Oxycopsis lineata* (Waterhouse)**

Copidita lineata Waterhouse, 1878. Trans. Ent. Soc. London, 1878: 308.

Type.—British Museum (Natural History).

Type locality.—Jamaica.

This species is similar to *Oxycopsis falli* (Blatchley) but may be readily distinguished from this species by the white pubescence in the form of three narrow stripes on each elytron, which is lacking in *O. falli*. It also lacks any pale sutural and lateral stripes in the ground color of

the elytra and lacks the reddish-piceous legs of *O. falli*. This species is unknown to me from Jamaica, but I have a specimen from the Dominican Republic to be described fully in a later publication.

***Oxycopsis falli* (Blatchley), New combination**

Oxacis falli Blatchley, 1928. Canadian Ent., 60: 63.

Type.—Purdue University collection.

Type locality.—Cape Sable, Florida.

Oxacis (Oxacis) falli Blatchley, Arnett, 1951. American Midl. Nat., 45: 311; Arnett, 1953. American Mus. Novit., no. 1646, p. 3.

The somewhat obscure bifurcation of the apices of the mandibles led me to treat this species as a member of the genus *Oxacis* in previous publications. I am convinced that it is really a member of *Oxycopsis*, not only because the majority of specimens that I have examined since my original studies show well developed bifid mandibles, but because the male genitalia resemble more closely those of the genus *Oxycopsis*.

The features described in the key, above, in the characterization of *O. lineata* above, and the full redescription in my Nearctic revision (1951) serve to characterize this species.

DISTRIBUTION.—Florida, Bimini, and Jamaica. [Preliminary studies of other West Indian material indicate a wider range than here indicated.]

MATERIAL EXAMINED.—3: Jamaica, no further data, 1, St. Andrew, Swollowfield, 1, St. Catherine, Port Henderson, 1.